

ds

Set	Items	Description
S1	26174	SOMATOTROPIN
S2	46607	GROWTH()HORMONE
S3	57585	S1 OR S2
S4	118932	MUTATION
S5	266	S3 AND S4
S6	22392	HELIX
S7	6	S5 AND S6
S8	3	AU="LEBENS M R" OR AU="LEBENS MR"
S9	1	AU="TARDY D"
S10	1000	AU="FISCHER M"
S11	0	S3 AND S10
S12	1230	E3-E37
S13	0	S3 AND S12
S14	0	S1 AND S12
S15	19693	TUMOR()NECROSIS()FACTOR
S16	299981	SEQUENCE
S17	839	S15 AND S16
S18	617	RD (unique items)
S19	342669	RECEPTOR
S20	1994	S15 AND S19
S21	110839	SOLUBLE
S22	233	S20 AND S21
S23	151	RD (unique items)
S24	12	SEQUENCE
S25	299981	SEQUENCE
S26	14	S23 AND S25

?t s26/3/1-14

625668

7-10 92

26/3/1 (Item 1 from file: 155)

08072529 92210529

Identification of cysteine-rich domains of the type 1 tumor necrosis factor receptor involved in ligand binding.

Marsters SA; Frutkin AD; Simpson NJ; Fendly BM; Ashkenazi A

Department of Immunobiology, Genentech, Inc., South San Francisco, California 94080.

J Biol Chem (UNITED STATES) Mar 25 1992, 267 (9) p5747-50, ISSN

0021-9258 Journal Code: HIV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/2 (Item 2 from file: 155)

08054029 92192029

Cytoplasmic truncation of the p55 tumour necrosis factor (TNF) receptor abolishes signalling, but not induced shedding of the receptor.

Brakebusch C; Nophar Y; Kemper O; Engelmann H; Wallach D

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

EMBO J (ENGLAND) Mar 1992, 11 (3) p943-50, ISSN 0261-4189

Journal Code: EMB

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/3 (Item 3 from file: 155)

07997196 92135196

Characterization of a recombinant extracellular domain of the type 1 tumor necrosis factor receptor: evidence for tumor necrosis factor-alpha induced receptor aggregation.

Rennica D; Kohr WJ; Fendly BM; Shire SJ; Raab HE; Borchardt PE; Lewis M; Goeddel DV

Department of Molecular Biology, Genentech, Inc., South San Francisco,

Ref	Items	Index-term
E1	6	AU=WALLACH C B
E2	5	AU=WALLACH CB
E3	371	*AU=WALLACH D
E4	1	AU=WALLACH D E
E5	1	AU=WALLACH D F
E6	188	AU=WALLACH D F H
E7	2	AU=WALLACH D H
E8	2	AU=WALLACH D H F
E9	9	AU=WALLACH D P
E10	1	AU=WALLACH DE
E11	155	AU=WALLACH DF
E12	2	AU=WALLACH DFH

625668

Enter P or E for more  
?s e3

S30 371 AU="WALL D"  
?s s15 and s30

1993 S15  
371 S30  
S31 88 S15 AND ?  
?s s20 and s30

1994 S20  
371 S30  
S32 33 S20 AND S30  
?t s32/3/1-33

32/3/1 (Item 1 from file: 155)  
08130484 92268484

Selective decrease in cell surface expression and mRNA level of the 55-kDa tumor necrosis factor receptor during differentiation of HL-60 cells into macrophage-like but not granulocyte-like cells.

Winzen R; Wallach D; Engelmann H; Nophar Y; Brakebusch C; Kemper O; Resch K; Holtmann H

Institute of Molecular Pharmacology, Medical School, Hannover, FRG.

J Immunol (UNITED STATES) Jun 1 1992, 148 (11) p3454-60, ISSN 0022-1767 Journal Code: IJB

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/2 (Item 2 from file: 155)  
28054029 92192029

Cytoplasmic truncation of the p55 tumour necrosis factor (TNF) receptor abolishes signalling, but not induced shedding of the receptor.

Brakebusch C; Nophar Y; Kemper O; Engelmann H; Wallach D

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

EMBO J (ENGLAND) Mar 1992, 11 (3) p943-50, ISSN 0261-4189

Journal Code: EMB

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/3 (Item 3 from file: 155)  
18004967 92142967

Soluble and cell surface receptors for tumor necrosis factor.

Wallach D; Engelmann H; Nophar Y; Aderka D; Kemper O; Hornik V; Holtmann I; Brakebusch C

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

Agents Actions Suppl (SWITZERLAND) 1991, 35 p51-7, ISSN 0379-0363

Journal Code: ZYH

Languages: ENGLISH

Document type: JOURNAL ARTICLE; REVIEW; REVIEW LITERATURE

32/3/4 (Item 4 from file: 155)  
7983813 92121813

Stabilization of the bioactivity of tumor necrosis factor by its soluble receptors.

Aderka D; Engelmann H; Maor Y; Brakebusch C; Wallach D

Department of Medicine T, Tel-Aviv Medical Center, Sackler Faculty of Medicine, Tel-Aviv University, Israel.

J Exp Med (UNITED STATES) Feb 1 1992, 175 (2) p323-9, ISSN 0022-1007

Journal Code: I2V

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/5 (Item 5 from file: 155)  
1873651 92011651

Human neutrophil elastase releases a ligand-binding fragment from the 55-kDa tumor necrosis factor (TNF) receptor. Comparison with the proteolytic activity responsible for shedding of TNF receptors from stimulated neutrophils.

CELL SURFACE AND SOLUBLE TNF RECEPTORS

WALLACH D; ADERKA D; ENGELMANN H; NOPHAR Y; KEMPER O; HOLTMANN H;  
BRAKEBUSCH C; VILLA S; GONDI F G; BUCCIARELLI U

DEP. MOL. GENET. VIROL., WEIZMANN INST. SCI., REHOVOT 76100, ISR.

OSAWA, T. AND B. BONAVIDA (ED.). TUMOR NECROSIS FACTOR:

STRUCTURE-FUNCTION RELATIONSHIP AND CLINICAL APPLICATION; 3RD INTERNATIONAL  
CONFERENCE ON TUMOR NECROSIS FACTOR AND RELATED CYTOKINES, MAKUHARI, JAPAN,  
NOVEMBER 21-25, 1990. IX+291P. S. KARGER AG: BASEL, SWITZERLAND; NEW YORK,  
NEW YORK, USA. ILLUS. ISBN 3-8055-5458-3. 0 (0). 1992. 47-57. CODEN:  
36660

Language: ENGLISH

Document Type: CONFERENCE PAPER

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Journal Code: PVS  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

26/3/9 (Item 9 from file: 155)

07526991 91045991

A second tumor necrosis factor receptor gene product can shed a naturally occurring tumor necrosis factor inhibitor.

Kohn T; Brewer MT; Baker SL; Schwartz PE; King MW; Hale KK; Squires CH; Thompson RC; Vannice JL

Synergen, Inc., Boulder, CO 80301.

Proc Natl Acad Sci U S A Nov 1990, 87 (21) p8331-5, ISSN 0027-8424

Journal Code: PVS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/10 (Item 10 from file: 155)

07498509 91017509

Cloning of human tumor necrosis factor (TNF) receptor cDNA and expression of recombinant soluble TNF-binding protein.

Gray FW; Barrett K; Chantry D; Turner M; Feldmann M

Charing Cross Sunley Research Centre, Hammersmith, London, England.

Proc Natl Acad Sci U S A Oct 1990, 87 (19) p7380-4, ISSN 0027-8424

Journal Code: PVS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/11 (Item 11 from file: 155)

07487021 91006021

Soluble forms of tumor necrosis factor receptors (TNF-Rs). The cDNA for the type I TNF-R, cloned using amino acid sequence data of its soluble form, encodes both the cell surface and a soluble form of the receptor.

Nophar Y; Kemper O; Brakebusch C; Englemann H; Zwang R; Aderka D; Holtmann H; Wallach D

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

EMBO J Oct 1990, 9 (10) p3269-78, ISSN 0261-4189 Journal Code: EMB

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/12 (Item 12 from file: 155)

07328285 90235285

Molecular cloning and expression of a receptor for human tumor necrosis factor.

Schall TJ; Lewis M; Koller KJ; Lee A; Rice GC; Wong GH; Gatanaga T; Granger GA; Lentz R; Raab H; et al

Department of Molecular Biology, Genentech, Inc., South San Francisco, California 94080.

Cell Apr 20 1990, 61 (2) p361-70, ISSN 0092-8674 Journal Code: CQ4

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/13 (Item 13 from file: 155)

07203215 90110215

Two tumor necrosis factor-binding proteins purified from human urine. Evidence for immunological cross-reactivity with cell surface tumor necrosis factor receptors.

Engelmann H; Novick D; Wallach D

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

J Biol Chem Jan 25 1990, 265 (3) p1531-6, ISSN 0021-9258

Journal Code: HIV

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/14 (Item 1 from file: 5)

0006-2960. Biochemistry (UNITED STATES) Feb 4 1992, 31 (4) p1134-41, ISSN  
0006-2960 Journal Code: A0G  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

26/3/4 (Item 4 from file: 155)

07966250 92104250

Functional significance of human vascular smooth muscle cell-derived interleukin 1 in paracrine and autocrine regulation pathways.

Loppnow H; Libby P

Department of Biochemistry, Forschungsinstitut Borstel, Germany.

Exp Cell Res (UNITED STATES) Feb 1992, 198 (2) p283-90, ISSN

0014-4827 Journal Code: EPB

Contract/Grant No.: HL34636

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/5 (Item 5 from file: 155)

07940859 92078859

A tumor necrosis factor (TNF) receptor-IgG heavy chain chimeric protein as a bivalent antagonist of TNF activity.

Peppel K; Crawford D; Beutler B

Howard Hughes Medical Institute, University of Texas Southwestern Medical Center, Dallas, Texas 75235.

J Exp Med (UNITED STATES) Dec 1 1991, 174 (6) p1483-9, ISSN 0022-1007

Journal Code: I2V

Contract/Grant No.: P01-DK42582-01

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/6 (Item 6 from file: 155)

07688415 91207415

T2 open reading frame from the Shope fibroma virus encodes a soluble form of the TNF receptor.

Smith CA; Davis T; Wignall JM; Din WS; Farrah T; Upton C; McFadden G; Goodwin RG

Immunex Corporation, Seattle, WA 98101.

Biochem Biophys Res Commun Apr 15 1991, 176 (1) p335-42, ISSN

0006-291X Journal Code: 9Y8

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/7 (Item 7 from file: 155)

07571841 91090841

Molecular cloning and expression of human and rat tumor necrosis factor receptor chain (p60) and its soluble derivative, tumor necrosis factor-binding protein.

Himmler A; Maurer-Fogy I; Kronke M; Scheurich P; Pfizenmaier K; Lantz M; Olsson I; Hauptmann R; Stratowa C; Adolf GR

Ernst Boehringer Institut, Bender + Co GesmbH, Vienna, Austria.

DNA Cell Biol Dec 1990, 9 (10) p705-15, ISSN 1044-5498

Journal Code: AF9

Languages: ENGLISH

Document type: JOURNAL ARTICLE

26/3/8 (Item 8 from file: 155)

07543364 91062364

Purification and characterization of an inhibitor (soluble tumor necrosis factor receptor) for tumor necrosis factor and lymphotoxin obtained from the serum ultrafiltrates of human cancer patients.

Gatanaga T; Hwang CD; Kohr W; Cappuccini F; Lucci JA 3d; Jeffes EW; Lentz R; Tomich J; Yamamoto RS; Granger GA

Department of Molecular Biology and Biochemistry, University of California, Irvine 92717.

Proc Natl Acad Sci U S A Nov 1990, 87 (22) p8781-4, ISSN 0027-8424

(FILE 'USPAT' ENTERED AT 10:58:14 ON 10 JUL 92)

DEL HIS  
L1 254 S TUMOR NECROSIS FACTOR  
L2 201937 S SEQUENCE  
L3 116 S L1 AND L2

=> d 13 cit 800-116

100. 4,785,077, Nov. 15, 1988, Substantially pure cytotoxicity triggering factor; Richard Kornbluth, et al., 530/351; 424/85.1, 85.4; 435/70.3, 70.4, 240.31, 948; 530/350, 827

101. 4,777,242, Oct. 11, 1988, Purification of recombinant \*\*tumor\*\* \*\*necrosis\*\* \*\*factor\*\*; Lynn P. Nelles, 530/351; 435/69.5, 803; 530/412, 415, 416, 417, 820

102. 4,770,995, Sep. 13, 1988, Detection of the sensitivity of cells to the effects of \*\*tumor\*\* necrosis\*\* \*\*factor\*\* and lymphotoxin; Berish Y. Rubin, et al., 435/7.20, 436/501, 544, 545, 546

103. 4,752,585, Jun. 21, 1988, Oxidation-resistant muteins; Kirston E. Koths, et al., 435/252.33, 172.3, 252.3, 256, 320.1; 530/351; 536/27; 930/141, 142; 935/10, 111

104. 4,748,234, May 31, 1988, Process for recovering <sup>125</sup>I-labeled bodies containing heterologous proteins from microbial hosts; Glenn Dorin, et al., 530/412; 435/69.51, 69.52; 530/351, 414, 416, 417, 422, 424, 825

105. 4,721,671, Jan. 26, 1988, Efficient prokaryotic expression system using portions of the E. coli .beta.; Algis Anilionis, et al., 435/69.7, 172.3, 201, 252.33, 320.1, 849; 530/350; 536/27; 930/10, 240; 935/14 [IMAGE AVAILABLE]

106. 4,684,623, Aug. 4, 1987, Use of \*\*tumor\*\* \*\*necrosis\*\* \*\*factor\*\* as a weight regulator; James W. Larrick, et al., 514/12; 424/85.1, 85.8; 514/11, 13, 14; 530/389.2; 930/144

107. 4,677,197, Jun. 30, 1987, Purification method for \*\*tumor\*\* \*\*necrosis\*\* \*\*factor\*\*; Leo S. Lin, et al., 530/417, 351, 416; 930/144, DIG.530

108. 4,677,064, Jun. 30, 1987, Human \*\*tumor\*\* \*\*necrosis\*\* \*\*factor\*\*; David F. Mark, et al., 435/69.1; 424/85.1, 88; 435/172.3, 252.3, 320.1; 514/8; 530/350, 351, 395, 808; 536/27; 930/144

109. 4,677,063, Jun. 30, 1987, Human \*\*tumor\*\* \*\*necrosis\*\* \*\*factor\*\*; David F. Mark, et al., 435/69.5; 424/85.1, 88; 435/172.3, 240.2, 252.3, 252.33, 320.1; 514/8, 12; 530/350, 351, 395, 808; 536/27; 930/144

110. 4,656,132, Apr. 7, 1987, Method of improving the yield of heterologous protein produced by cultivating recombinant bacteria; Arie Ben-Bassat, et al., 435/69.5, 69.51, 69.52, 172.3; 935/33, 38, 111

111. 4,650,674, Mar. 17, 1987, Synergistic cytotoxic composition; Bharat B. Aggarwal, et al., 424/85.5, 85.4; 435/69.5; 514/12; 930/143, 144

112. 4,588,585, May 13, 1986, Human recombinant cysteine depleted interferon-.beta. muteins; David F. Mark, et al., 424/85.2, 85.6; 435/69.51, 172.3; 530/351; 930/141, 142

113. 4,530,787, Jul. 23, 1985, Controlled oxidation of microbially produced cysteine-containing proteins; Ze'ev Shaked, et al., 530/351; 424/85.2, 85.4, 85.6, 88; 435/69.51, 811; 530/345, 363, 410, 808, 820, 825

114. 4,529,594, Jul. 16, 1985, Protein having antitumor activity; Hiroshi Hayashi, et al., 514/12; 424/85.1, 88; 530/324, 350, 413, 825, 828, 830; 930/10

115. 4,518,584, May 21, 1985, Human recombinant interleukin-2 muteins; David F. Mark, et al., 424/85.2, 85.1, 85.6; 435/69.51, 69.52, 172.3; 514/2, 8, 12; 530/351, 809; 930/141, 142

116. 4,481,137, Nov. 6, 1984, Glycoproteins and processes for their production; Haruo Ohnishi, et al., 530/395; 424/85.1; 435/70.3, 70.4; 514/8, 908; 530/322, 351, 806, 809, 828, 829

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(FILE 'USPAT' ENTERED AT 10:58:14 ON 10 JUL 92)

DEL HIS  
L1 254 S TUMOR NECROSIS FACTOR  
L2 201937 S SEQUENCE  
L3 116 S L1 AND L2  
L4 11032 S RECEPTOR  
L5 82 S L1 AND L4

Porteu F; Brockhaus M; Wallach D; Engelmann H; Nathan LR  
Beatrice and Samuel A. Seaver Laboratory, Department of Medicine, Cornell  
University Medical College, New York, New York 10021.

J Biol Chem Oct 5 1991, 266 (28) p18846-53, ISSN 0021-9258

Journal Code: HIV

Contract/Grant No.: CA45218

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/6 (Item 6 from file: 155)

07871844 92009844

The gene for the type II (p75) tumor necrosis factor receptor (TNF-RII) is localized on band 1p36.2-p36.3.

Kemper O; Derre J; Cherif D; Engelmann H; Wallach D; Berger R

Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.

Hum Genet Sep 1991, 87 (5) p623-4, ISSN 0340-6717 Journal Code: GED

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/7 (Item 7 from file: 155)

07867499 92005499

Increased serum levels of soluble receptors for tumor necrosis factor in cancer patients.

Aderka D; Englemann H; Hornik V; Skornick Y; Levo Y; Wallach D; Kushtai G

Department of Medicine, Tel-Aviv Sourasky Medical Center, Sackler School of Medicine, Tel Aviv University, Israel.

Cancer Res Oct 15 1991, 51 (20) p5602-7, ISSN 0008-5472

Journal Code: CNF

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/8 (Item 8 from file: 155)

07774800 91293800

The gene for the type 1 tumor necrosis factor receptor (TNF-R1) is localized on band 12p13.

Derre J; Kemper O; Cherif D; Nophar Y; Berger R; Wallach D

INSERM U301, Institut de Genetique Moleculaire, Paris, France.

Hum Genet Jun 1991, 87 (2) p231-3, ISSN 0340-6717 Journal Code: GED

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/9 (Item 9 from file: 155)

07766027 91285027

Induction of hyporesponsiveness to an early post-binding effect of tumor necrosis factor by tumor necrosis factor itself and interleukin 1.

Konig M; Wallach D; Resch K; Holtmann H

Institute of Molecular Pharmacology, Medical School, Hannover, FRG.

Eur J Immunol Jul 1991, 21 (7) p1741-5, ISSN 0014-2980

Journal Code: ENS

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/10 (Item 10 from file: 155)

07762541 91281541

Mechanisms controlling the level of receptors for tumor necrosis factor.

Holtmann H; Brakebusch C; Konig M; Klocke R; Winzen R; Resch K; Wallach D

Department of Molecular Pharmacology, Medical School Hannover, FRG.

Agents Actions Jan 1991, 32 (1-2) p106-8, ISSN 0065-4299

Journal Code: 2XZ

Languages: ENGLISH

Document type: JOURNAL ARTICLE

32/3/11 (Item 11 from file: 155)

07487021 91006021

Soluble forms of tumor necrosis factor receptors (TNF-Rs). The cDNA for

the type I TNF-R, cloned using amino acid sequence data of its soluble form, encodes both the cell surface and a soluble form of the receptor.  
Nophar Y; Kemper O; Brakebusch C; Englemann H; Zwang R; Aderka D; Holtmann H; Wallach D  
Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.  
EMBO J Oct 1990, 9 (10) p3269-78, ISSN 0261-4189 Journal Code: EMB  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/12 (Item 12 from file: 155)  
07447443 90354443  
Antibodies to a soluble form of a tumor necrosis factor (TNF) receptor have TNF-like activity.  
Engelmann H; Holtmann H; Brakebusch C; Avni YS; Sarov I; Nophar Y; Hadas E; Leitner O; Wallach D  
Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.  
J Biol Chem Aug 25 1990, 265 (24) p14497-504, ISSN 0021-9258  
Journal Code: HIV  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/13 (Item 13 from file: 155)  
07203215 90110215  
Two tumor necrosis factor-binding proteins purified from human urine. Evidence for immunological cross-reactivity with cell surface tumor necrosis factor receptors.  
Engelmann H; Novick D; Wallach D  
Department of Molecular Genetics and Virology, Weizmann Institute of Science, Rehovot, Israel.  
J Biol Chem Jan 25 1990, 265 (3) p1531-6, ISSN 0021-9258  
Journal Code: HIV  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/14 (Item 14 from file: 155)  
07006603 89308603  
A tumor necrosis factor-binding protein purified to homogeneity from human urine protects cells from tumor necrosis factor toxicity.  
Engelmann H; Aderka D; Rubinstein M; Rotman D; Wallach D  
Department of Virology, Weizmann Institute of Science, Rehovot, Israel.  
J Biol Chem Jul 15 1989, 264 (20) p11974-80, ISSN 0021-9258  
Journal Code: HIV  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/15 (Item 15 from file: 155)  
06553989 88198989  
Dominance of resistance to the cytotoxic effect of tumor necrosis factor in heterokaryons formed by fusion of resistant and sensitive cells.  
Nophar Y; Holtmann H; Ber R; Wallach D  
Department of Virology, Weizmann Institute of Science, Rehovot, Israel.  
J Immunol May 15 1988, 140 (10) p3456-60, ISSN 0022-1767  
Journal Code: IFB  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/16 (Item 16 from file: 155)  
06307632 87281632  
Down regulation of the receptors for tumor necrosis factor by interleukin 1 and 4 beta-phorbol-12-myristate-13-acetate.  
Holtmann H; Wallach D  
J Immunol Aug 15 1987, 139 (4) p1161-7, ISSN 0022-1767  
Journal Code: IFB  
Languages: ENGLISH



LOCALIZED ON BAND 1P36.2-P36.3

KEMPER O; DERRE J; CHERIF D; ENGELMANN H; WALLACH D; BERGER R  
UNITE INSERM U. 301, INS GENETIQUE MOLECULAIRE, 27 RUE JULIETTE DODU,  
F-75010 PARIS, FR.

HUM GENET 87 (5). 1991. 623-624. CODEN: HUGED

Full Journal Title: Human Genetics

Language: ENGLISH

32/3/23 (Item 6 from file: 5)

8599313 BIOSIS Number: 92064313

THE GENE FOR THE TYPE 1 TUMOR NECROSIS FACTOR RECEPTOR TNF-R1 IS  
LOCALIZED ON BAND 12P13

DERRE J; KEMPER O; CHERIF D; NOPHAR Y; BERGER R; WALLACH D  
INSERM U301, SDI NO. 15954 CNRS, INST. GENETIQUE MOLECULAIRE, 27 RUE  
JULIETTE DODU, F-7510 PARIS, FR.

HUM GENET 87 (2). 1991. 231-233. CODEN: HUGED

Full Journal Title: Human Genetics

Language: ENGLISH

32/3/24 (Item 7 from file: 5)

8445425 BIOSIS Number: 41129425

STUDYING STRUCTURE-FUNCTION RELATIONSHIP IN THE HUMAN TYPE 1 P55  
TNF-RECEPTOR USING HETEROLOGOUS EXPRESSION IN MURINE CELLS

BRAKEBUSCH C; NOPHAR Y; KEMPER O; ENGELMANN H; GRUNEWALD M; KING A;  
WALLACH D

SCH. MED., HANNOVER, FRG.

TWENTY-EIGHTH NATIONAL MEETING OF THE SOCIETY FOR LEUKOCYTE BIOLOGY AND  
THE TWENTY-FIRST LEUKOCYTE CULTURE CONFERENCE, ASPEN, COLORADO, USA,  
SEPTEMBER 28-OCTOBER 1, 1991. J LEUKOCYTE BIOL 0 (SUPPL. 2). 1991. 98.

CODEN: JLBIE

Language: ENGLISH

Document Type: CONFERENCE PAPER

32/3/25 (Item 8 from file: 5)

7766655 BIOSIS Number: 90134655

SOLUBLE FORMS OF TUMOR NECROSIS FACTOR RECEPTORS TNF-RS THE COMPLEMENTARY  
DNA FOR THE TYPE I TNF-R CLONED USING AMINO ACID SEQUENCE DATA OF ITS  
SOLUBLE FORM ENCODES BOTH THE CELL SURFACE AND A SOLUBLE FORM OF THE  
RECEPTOR

NOPHAR Y; KEMPER O; BRAKEBUSCH C; ENGELMANN H; ZWANG R; ADERKA D;  
HOLTMANN H; WALLACH D

DEP. MOL. GENETICS VIROL., WEIZMANN INST. SCI., REHOVOT, ISRAEL 76100.

EMBO (EUR MOL BIOL ORGAN) J 9 (10). 1990. 3269-3278. CODEN: EMJOD

Full Journal Title: EMBO (European Molecular Biology Organization)  
Journal

Language: ENGLISH

32/3/26 (Item 9 from file: 5)

7743514 BIOSIS Number: 90111514

ANTIBODIES TO A SOLUBLE FORM OF A TUMOR NECROSIS FACTOR TNF RECEPTOR HAVE  
TNF-LIKE ACTIVITY

ENGELMANN H; HOLTMANN H; BRAKEBUSCH C; AVNI Y S; SAROV I; NOPHAR Y; HADAS  
E; LEITNER O; WALLACH D

DEP. MOL. GENETICS VIROL., WEIZMANN INST., REHOVOT 76100, ISRAEL.

J BIOL CHEM 265 (24). 1990. 14497-14504. CODEN: JBCHA

Full Journal Title: Journal of Biological Chemistry

Language: ENGLISH

32/3/27 (Item 10 from file: 5)

7548787 BIOSIS Number: 39061394

RECEPTOR-RELATED ASPECTS OF THE MODE OF ACTION OF TUMOR NECROSIS FACTOR  
AND ITS MODULATION

HOLTMANN H; BRAKEBUSCH C; ENGELMANN H; KOENIG M; KLOCKE R; NOPHAR Y;  
RESCH K; WALLACH D

DEP. MOL. PHARMACOL., MEDICAL SCH. HANNOVER, FRG.

31ST SPRING MEETING OF THE DEUTSCHE GESELLSCHAFT FUER PHARMAKOLOGIE UND

32/3/17 (Item 17 from file: 155)  
05948378 86249378  
Binding of human TNF-alpha to high-affinity cell surface receptors:  
effect of IFN.  
Israel S; Hahn T; Holtmann H; Wallach D  
Immunol Lett Apr 1986, 12 (4) p217-24, ISSN 0165-2478  
Journal Code: GIH  
Languages: ENGLISH  
Document type: JOURNAL ARTICLE

32/3/18 (Item 1 from file: 5)  
8904179 BIOSIS Number: 42129179  
CELL SURFACE AND SOLUBLE TNF RECEPTORS  
WALLACH D; ADERKA D; ENGELMANN H; NOPHAR Y; KEMPER O; HOLTMANN H;  
BRAKEBUSCH C; VILLA S; GONDI F G; BUCCIARELLI U  
DEP. MOL. GENET. VIROL., WEIZMANN INST. SCI., REHOVOT 76100, ISR.  
OSAWA, T. AND B. BONAVIDA (ED.). TUMOR NECROSIS FACTOR:  
STRUCTURE-FUNCTION RELATIONSHIP AND CLINICAL APPLICATION; 3RD INTERNATIONAL  
CONFERENCE ON TUMOR NECROSIS FACTOR AND RELATED CYTOKINES, MAKUHARI, JAPAN,  
NOVEMBER 21-25, 1990. IX+291P. S. KARGER AG: BASEL, SWITZERLAND; NEW YORK,  
NEW YORK, USA. ILLUS. ISBN 3-8055-5458-3. 0 (0). 1992. 47-57. CODEN:  
36660  
Language: ENGLISH  
Document Type: CONFERENCE PAPER

32/3/19 (Item 2 from file: 5)  
8897179 BIOSIS Number: 42122179  
CHANGES IN THE EXPRESSION OF TUMOR NECROSIS FACTOR RECEPTOR DURING  
DIFFERENTIATION OF HL-60 CELLS  
HOLTMANN H; WINZEN R; BRAKEBUSCH C; NOPHAR Y; ENGELMANN H; RESCH K;  
WALLACH D  
INST. MOLECULAR PHARMACOL., MED. SCH., HANNOVER, FRG.  
KEYSTONE SYMPOSIUM ON CYTOKINES IN GROWTH AND DEVELOPMENT, TAOS, NEW  
MEXICO, USA, FEBRUARY 1-8, 1992. J CELL BIOCHEM SUPPL 0 (16 PART B). 1992.  
293. CODEN: JCBSD  
Language: ENGLISH  
Document Type: CONFERENCE PAPER

32/3/20 (Item 3 from file: 5)  
8825551 BIOSIS Number: 42050551  
CONTROL OF THE CELLULAR RESPONSE TO TUMOR NECROSIS FACTOR TNF  
HOLTMANN H; KOENIG M; ENGELMANN H; WALLACH D; RESCH K  
INST. MOL. PHARMACOL., MED. SCH., 3000 HANNOVER 61, GER.  
XXIIND MEETING OF THE SOCIETY OF IMMUNOLOGY, LUEBECK-TRAVEMUENDE,  
GERMANY, OCTOBER 23-26, 1991. IMMUNOBIOLOGY 183 (3-4). 1991. 257-258.  
CODEN: IMMND  
Language: ENGLISH  
Document Type: CONFERENCE PAPER

32/3/21 (Item 4 from file: 5)  
8667789 BIOSIS Number: 92132789  
HUMAN NEUTROPHIL ELASTASE RELEASES A LIGAND-BINDING FRAGMENT FROM THE  
75-KDA TUMOR NECROSIS FACTOR TNF RECEPTOR COMPARISON WITH THE PROTEOLYTIC  
ACTIVITY RESPONSIBLE FOR SHEDDING OF TNF RECEPTORS FROM STIMULATED  
NEUTROPHILS  
PORTEU F; BROCKHAUS M; WALLACH D; ENGELMANN H; NATHAN C F  
CORNELL UNIV. MED. COLL., BOX 57, 1300 YORK AVE., NEW YORK, N.Y. 10021.  
J BIOL CHEM 266 (28). 1991. 18846-18853. CODEN: JBCHA  
Full Journal Title: Journal of Biological Chemistry  
Language: ENGLISH

32/3/22 (Item 5 from file: 5)  
8659323 BIOSIS Number: 92124323  
THE GENE FOR THE TYPE II P75 TUMOR NECROSIS FACTOR RECEPTOR TNF-RII IS

Language: ENGLISH  
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TOXICOLOGIE (GERMAN SOCIETY FOR PHARMACOLOGY AND TOXICOLOGY), MAINZ, WEST GERMANY, MARCH 13-16, 1990. NAUNYN-SCHMIEDEBERG'S ARCH PHARMACOL 341 (SUPPL.). 1990. R77. CODEN: NSAPC

Language: ENGLISH

Document Type: CONFERENCE PAPER

32/3/28 (Item 11 from file: 5)

7151362 BIOSIS Number: 88074107

A TUMOR NECROSIS FACTOR-BINDING PROTEIN PURIFIED TO HOMOGENEITY FROM HUMAN URINE PROTECTS CELLS FROM TUMOR NECROSIS FACTOR TOXICITY

ENGELMANN H; ADERKA D; RUBINSTEIN M; ROTMAN D; WALLACH D

DEP. VIROL., WEIZMANN INST. SCI., REHOVOT, ISRAEL.

J BIOL CHEM 264 (20). 1989. 11974-11980. CODEN: JBCHA

Full Journal Title: Journal of Biological Chemistry

Language: ENGLISH

32/3/29 (Item 12 from file: 5)

6766030 BIOSIS Number: 36096551

IL-1 AND IFN MODULATE TNF-RECEPTOR EXPRESSION IN HUMAN POLYMORPHONUCLEAR AND MONONUCLEAR LEUKOCYTES

HAHN T; ENGELMANN H; HOLTMANN H; LANDAU Z; WALLACH D

PEDIATRIC RES. INST., KAPLAN HOSP., REHOVOT.

ANNUAL INTERNATIONAL SOCIETY FOR INTERFERON RESEARCH MEETING ON INTERFERONS AND CYTOKINES, KYOTO, JAPAN, NOVEMBER 14-18, 1988. J INTERFERON RES 8 (SUPPL. 1). 1988. S148. CODEN: JIRED

Language: ENGLISH

Document Type: CONFERENCE PAPER

32/3/30 (Item 13 from file: 5)

6562182 BIOSIS Number: 86028733

DOMINANCE OF RESISTANCE TO THE CYTOCIDAL EFFECT OF TUMOR NECROSIS FACTOR IN HETEROKARYONS FORMED BY FUSION OF RESISTANT AND SENSITIVE CELLS

NOPHAR Y; HOLTMANN H; BER R; WALLACH D

DEP. VIROL., WEIZMANN INST. SCI., REHOVOT 76100, ISRAEL.

J IMMUNOL 140 (10). 1988. 3456-3460. CODEN: JOIMA

Full Journal Title: Journal of Immunology

Language: ENGLISH

32/3/31 (Item 14 from file: 5)

6102312 BIOSIS Number: 34104619

REGULATION OF CELL RESPONSE TO TUMOR NECROSIS FACTOR

WALLACH D; NOPHAR Y; ADERKA D; ISRAEL S; HAHN T; ENGELMANN H; HOLTMANN H  
WEIZMANN INST. SCI., REHOVOT 76100, ISRAEL.

INTERNATIONAL CONFERENCE ON TUMOR NECROSIS FACTOR AND RELATED CYTOTOXINS, HEIDELBERG, WEST GERMANY, SEPTEMBER 14-18, 1987. IMMUNOBIOLOGY 175 (1-2). 1987. 42. CODEN: IMMND

Language: ENGLISH

Document Type: CONFERENCE PAPER

32/3/32 (Item 15 from file: 5)

5977388 BIOSIS Number: 84109953

DOWN REGULATION OF THE RECEPTORS FOR TUMOR NECROSIS FACTOR BY INTERLEUKIN 1 AND 4-BETA PHORBOL-12-MYRISTATE-13-ACETATE

HOLTMANN H; WALLACH D

DEP. VIROL., WEIZMANN INST. SCI., REHOVOT 76100, ISR.

J IMMUNOL 139 (4). 1987. 1161-1167. CODEN: JOIMA

Full Journal Title: Journal of Immunology

Language: ENGLISH

32/3/33 (Item 16 from file: 5)

5409320 BIOSIS Number: 82054123

BINDING OF HUMAN TUMOR NECROSIS FACTOR TO HIGH-AFFINITY CELL SURFACE RECEPTORS EFFECT OF INTERFERON

ISRAEL S; HAHN T; HOLTMANN H; WALLACH D

DEP. VIROL., WEIZMANN INST. SCI., REHOVOT, ISR.

IMMUNOL LETT 12 (4). 1986. 217-224. CODEN: IMLED

7. N71302	HSV-1 <del>SB</del> and surrounding regi	3871	17	759	15.15	0
	**** 15 standard deviations above mean ****					
8. Q10613	Rianodin receptor gene.	15672	22	700	13.95	0
9. Q06331	Human IL-2R beta chain.	4035	22	695	13.84	0
10. Q05872	Sequence encoding human inter	4035	22	693	13.80	0
11. N70938	DNA fragment contg. streptomy	3830	23	691	13.76	0
12. N82026	Cloned p2.1 insert encodes hu	3640	26	690	13.74	0
13. Q03665	Sequence homologous to Drosop	2465	22	689	13.72	0
14. N70834	L-Tryptophan production.	7726	21	687	13.68	0
15. Q11707	Immunoglobulin D-region heavy	14928	23	687	13.68	0
16. Q13402	Human alpha-2 plasmin inhibit	2243	15	687	13.68	0
17. Q11010	Fibulin C.	2200	19	683	13.60	0
18. N92325	Human alpha-2-plasmin inhibit	2249	15	683	13.60	0
19. N80944	Alpha-2 plasmin inhibitor pre	2189	15	681	13.56	0
20. Q05831	Cardiac sodium channel gene.	7555	21	681	13.56	0

1. US-07-625-668A-1 (1-2175)  
Q12215 Type I TNF receptor.

ID Q12215 standard; DNA; 2176 BP.  
AC Q12215;  
DT 12-SEP-1991 (first entry)  
DE Type I TNF receptor.  
KW Tumour Necrosis Factor; TNF; binding protein; TBP-I; ss.  
OS Homo sapiens.  
FH Key Location/Qualifiers  
FT terminator 244..246  
FT /\*tag= a  
FT /note= "in-frame termination codon"  
FT CDS 256..1620  
FT /\*tag= a  
FT /product= type I TNF receptor  
FT sig\_peptide 256..318  
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FT mat\_peptide 319..1620  
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FT /\*tag= f  
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*need*

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2090      2100      2110      2120      2130      2140      2150
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2160      2170      X
TAAAAAAAAAAAAAAAAA
|||||
TAAAAAAAAAAAAAAAAA
2170      X

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## 2. US-07-625-668A-1 (1-2175)

Q06285 Human Tumour Necrosis Factor-Receptor cDNA insert.

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ID   Q06285 standard; DNA; 2141 BP.
AC   Q06285;
DT   29-JAN-1991 (first entry).
DE   Human Tumour Necrosis Factor-Receptor cDNA insert.
KW   Tumour necrosis factor binding protein; TNF-BP; TNF-receptor;
KW   lambdaTNF-R2; raTNF-R8; ss.
OS   Homo sapiens.
FH   Key                      Location/Qualifiers
FT   CDS                      213..1577
FT   /*tag= a
FT   /label=huTNF-R
PN   EP-393438-A.
PD   24-OCT-1990.
PF   06-APR-1990; 106624.
PR   21-APR-1989; DE-913101.
PR   21-JUN-1989; DE-920282.
PA   (BOEH ) BOEHRINGER INGELHEIMINT.
PI   Hauptmann R, Himmler A, Maurer-Fogy I, Stratowa C;
DR   WPI; 90-321987/43.
DR   P-PSDB; R07451.
PT   DNA encoding TNF binding protein and TNF- receptor - used in
PT   tumour treatment and to understand mechanism to TNF action
PS   Disclosure; Fig 91(1-2); 51pp; German.
CC   raTNF-R8 (Q06284) was used to screen the HS913T cDNA library.
CC   LambdaTNF-R2 encodes the complete human TNF-R2 and was used to
CC   construct a plasmid (pADTNF-R) expressing the product the same way
CC   as pADTNF-BP (see Q06282).
CC   See also Q06282-Q06285.
SQ   Sequence 2141 BP; 455 A; 633 C; 593 G; 460 T;

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Initial Score      = 1711   Optimized Score = 2087   Significance = 42.35
Residue Identity   = 98%   Matches          = 2097   Mismatches   = 35
Gaps               = 2     Conservative Substitutions = 0

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      X      10      20      30      40      50      60

      110      120      130      140      150      160      170
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 PR 12-JUL-1990; IL-095064.  
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 PI Wallach D, Nophar Y, Kemper D, Engelmann H, Brakebusch C;  
 PI Aderka D;  
 DR WPI; 91-186774/26.  
 DR P-PSDB; R12550.  
 PT Recombinant tumour necrosis factor binding protein I - prepd. by  
 PT transfecting eukaryotic cells with vector contg. deoxyribonucleic  
 PT acid encoding human type T TNF receptor or soluble domain  
 PS Disclosure; Fig 1(D); 30pp; English.  
 CC The Tumour Necrosis Factor Binding Protein I is the soluble form of  
 CC type I TNF-receptor and constitutes a fragment of the cell surface  
 CC form of this receptor, corresp. to its extracellular domain.  
 CC There is no characteristic poly(A) addition signal near the 3' end  
 CC of the cDNA. The sequence ACTAAA (tag m) may serve as an  
 CC alternative to this signal, but with low efficiency.  
 CC See also Q12212-15.  
 SQ Sequence 2176 BP; 475 A; 644 C; 602 G; 455 T;

Initial Score = 1800 Optimized Score = 2167 Significance = 43.99  
 Residue Identity = 99% Matches = 2172 Mismatches = 3  
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Number of residues: 15631576  
 Number of sequences optimized: 4191

The scores below are sorted by optimized score.  
 Significance is calculated based on optimized score.

A 100% identical sequence to the query sequence was not found.

The list of best scores is:

12-13-90

Sequence Name	Description	Length	Init. Score	Opt. Score	Sig.	Frame
**** 47 standard deviations above mean ****						
1. HUMTNFRB	Homo sapiens tumor necrosis f	2111	1713	2085	47.96	0
2. HUMTNFR	Human tumor necrosis factor r	2087	2074	2077	47.75	0
3. HUMTNFRC	Human tumor necrosis factor r	2112	1660	2074	47.67	0
**** 38 standard deviations above mean ****						
4. HSTNFBP	Human tumor necrosis factor r	2050	1625	1718	38.49	0
5. HUMTNFRP	Human tumor necrosis factor r	2050	1625	1718	38.49	0
**** 24 standard deviations above mean ****						
6. MUSTNFRES	Mouse mRNA for 55-kDa tumor n	2179	817	1193	24.94	0
7. MUSP55R	Murine mRNA for p55 tumor nec	2063	795	1160	24.09	0
8. MUSMTNFR1	Mouse tumor necrosis factor r	2048	775	1159	24.07	0
**** 23 standard deviations above mean ****						
9. MUSTNFR2	Murine tumor necrosis factor	1956	812	1136	23.47	0
**** 21 standard deviations above mean ****						
10. RATTNFR	Rat tumor necrosis factor rec	2130	793	1042	21.05	0
**** 12 standard deviations above mean ****						
11. CHKMYB15	Chicken c-myb oncogene DNA fo	8200	28	706	12.38	0
12. PSESDSAB11	Pseudomonas sp. (strain ATCC	3510	25	704	12.33	0
13. XAADHLA	X.autotrophicus haloalkane de	3041	28	697	12.15	0
14. DROHBG	Drosophila melanogaster hunch	7680	23	696	12.12	0
15. HUMINT2	Human int-2 proto-oncogene.	11608	25	696	12.12	0
16. HUMTGFB	Human transforming growth fac	2744	24	695	12.10	0
17. HS1GLYB	xerpes simplex virus type 1 g	9756	27	695	12.10	0
18. M21629	Figure 2. Nucleotide sequence	9756	27	695	12.10	0
19. HUMLARR	Human mRNA for LCA-homolog. L	7702	25	694	12.07	0
20. SUSAL1COL	Strongylocentrotus purpuratus	4245	23	694	12.07	0

# 1. US-07-625-668A-1 (1-2175)

HUMTNFRB Homo sapiens tumor necrosis factor receptor mRNA,

LOCUS HUMTNFRB 2111 bp ss-mRNA PRI 14-NOV-1990  
 DEFINITION Homo sapiens tumor necrosis factor receptor mRNA, complete cds.  
 ACCESSION M58286 M33480  
 KEYWORDS tumor necrosis factor receptor.  
 SOURCE Human cell line HL60, cDNA to mRNA.  
 ORGANISM Homo sapiens  
 Eukaryota; Animalia; Metazoa; Chordata; Vertebrata; Mammalia;  
 Theria; Eutheria; Primates; Haplorhini; Catarrhini; Hominidae.  
 REFERENCE 1 (bases 1 to 2111)  
 AUTHORS Loetscher, H., Pan, Y.-C.E., Lahm, H.-W., Gentz, R., Brockhaus, M.,  
 Tabuchi, H. and Lesslauer, W.  
 TITLE Molecular cloning and expression of the human 55 kd tumor necrosis  
 factor receptor  
 JOURNAL Cell 61, 351-359 (1990)  
 STANDARD simple staff\_review  
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 CDS 187..1554  
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2. US-07-625-668A-1 (1-2175)

HUMTNFR Human tumor necrosis factor receptor mRNA, complet

LOCUS HUMTNFR 2087 bp ss-mRNA PRI 15-SEP-1990  
DEFINITION Human tumor necrosis factor receptor mRNA, complete cds.  
ACCESSION M33294  
KEYWORDS cell surface receptor; tumor necrosis factor receptor.  
SOURCE Human placenta, cDNA to mRNA.  
ORGANISM Homo sapiens  
Eukaryota; Animalia; Metazoa; Chordata; Vertebrata; Mammalia;  
Theria; Eutheria; Primates; Haplorhini; Catarrhini; Hominidae.  
REFERENCE 1 (sites)  
AUTHORS Schall,T.J., Lewis,M., Koller,K.J., Lee,A., Rice,G.C., Wong,G.H.,  
Getanaga,T., Granger,G.A., Lentz,R., Raab,H., Kohr,W.J. and  
Goeddel,D.V.  
TITLE Molecular cloning and expression of a receptor for human tumor  
necrosis factor  
JOURNAL Cell (1990) In press  
STANDARD full staff\_review  
REFERENCE 2 (bases 1 to 2087)  
AUTHORS Schall,T.J., Lewis,M., Koller,K.J., Lee,A., Rice,G.C., Wong,G.H.,  
Gatanaga,T., Granger,G.A., Lentz,R., Raab,H., Kohr,W.J. and  
Goeddel,D.V.  
TITLE Molecular cloning and expression of a receptor for human tumor  
necrosis factor  
JOURNAL Cell 61, 361-370 (1990)  
STANDARD full staff\_review  
COMMENT Draft entry and computer-readable sequence for [1] kindly submitted  
by T.Schall, 26-MAR-1990.  
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2010      2020      2030      2040      2050      2060      2070

      2160      2170
CTGAAGTTAAAAAAAAAAAA
|||||
CTGAAGTTA
2080      X

```

### 3. US-07-625-668A-1 (1-2175)

HUMTNFRC Human tumor necrosis factor receptor (TNF receptor)

LOCUS	HUMTNFRC	2112 bp ss-mRNA	PRI	30-SEP-1991
DEFINITION	Human tumor necrosis factor receptor (TNF receptor) mRNA, complete cds.			
ACCESSION	M63121 M75861			
KEYWORDS	tumor necrosis factor receptor.			
SOURCE	Human cDNA to mRNA.			
ORGANISM	Homo sapiens			
	Eukaryota; Animalia; Metazoa; Chordata; Vertebrata; Mammalia; Theria; Eutheria; Primates; Haplorhini; Catarrhini; Hominidae.			
REFERENCE	1 (bases 1 to 2112)			
AUTHORS	Himmler,A., Maurer-Fogy,I., Kroenke,M., Scheurich,P., Pfizenmaier,K., Lantz,M., Olsson,I., Hauptmann,R., Stratowa,C. and Adolf,G.R.			
TITLE	Molecular cloning and expression of human and rat tumor necrosis factor receptor chain (p60) and its soluble derivative, tumor necrosis factor-binding protein			
JOURNAL	DNA Cell Biol. 9, 705-715 (1990)			
STANDARD	simple staff entry			
FEATURES	Location/Qualifiers			
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435 a      632 c      589 a      456 t

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Initial Score      = 1660   Optimized Score    = 2074   Significance = 47.67
Residue Identity  = 98%    Matches          = 2084   Mismatches   = 27
Gaps              = 2      Conservative Substitutions = 0
```

[illegible]

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|||||  
CAGACACTGCCTCAGCTGCTCCAAATGCCGAAAGGAAATGGGTGAGGTGGAGATCTCTTCTTGACACAGTGGA  
500 510 520 530 540 550 560

620 630 640 650 660 670 680  
CCGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTT  
|||||  
CCGGGACACCGTGTGTGGCTGCAGGAAGAACCAGTACCGGCATTATTGGAGTGAAAACCTTTTCCAGTGCTT  
570 580 590 600 610 620 630

690 700 710 720 730 740 750  
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640 650 660 670 680 690 700

760 770 780 790 800 810 820 830  
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CCATGCAGGTTTCTTTCTAAGAGAAAACGAGTGTGTCTCCTGTAGTAACTGTAAGAAAAGCCTGGAGTGCAC  
710 720 730 740 750 760 770 780

840 850 860 870 880 890 900  
GAAGTTGTGCCTACCCAGATTGAGAATGTTAAGGGCACTGAGGACTCAGGCACCACAGTGTGTTGCCCCCT  
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790 800 810 820 830 840 850

910 920 930 940 950 960 970  
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|||||  
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860 870 880 890 900 910 920

980 990 1000 1010 1020 1030 1040  
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|||||  
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930 940 950 960 970 980 990

1050 1060 1070 1080 1090 1100 1110  
TAAGCCCTTGCCCCAAACCCAAGCTTCAGTCCCACTCCAGGCTTCACCCCCACCCTGGGCTTCAGTCCCGT  
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1000 1010 1020 1030 1040 1050 1060

1120 1130 1140 1150 1160 1170 1180 1190  
GCCCAGTTCCACCTTCACCTCCAGCTCCACCTATACCCCGGTGACTGTCCCAACTTTGCGGCTCCCCGCAG  
|||||  
GCCCAGTTCCACCTTCACCTCCAGCTCCACCTATACCCCGGTGACTGTCCCAACTTTGCGGCTCCCCGCAG  
1070 1080 1090 1100 1110 1120 1130 1140

1200 1210 1220 1230 1240 1250 1260  
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|||||  
AGAGGTGGCACCACCCTATCAGGGGGGCTGACCCCATCCTTGCGACAGCCCTCGCCTCCGACCCCATCCCCAA  
1150 1160 1170 1180 1190 1200 1210

1270 1280 1290 1300 1310 1320 1330  
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1220 1230 1240 1250 1260 1270 1280

4. US-07-625-668A-1 (1-2175)  
Q10883 30kD TNF inhibitor precursor gene in lambda-gt10-7

ID Q10883 standard; cDNA; 2088 BP.  
AC Q10883;  
DT 13-MAY-1991 (first entry)  
DE 30kD TNF inhibitor precursor gene in lambda-gt10-7ctnfbp.  
KW Tumour necrosis factor; inhibitor; ss.  
OS Homo sapiens.  
FH Key Location/Qualifiers  
FT CDS 171..1536  
FT /\*tag= a  
PN AU9058976-A.  
PD 24-JAN-1991.  
PF 16-JUL-1990; 058976.  
PR 18-JUL-1989; US-381080.  
PR 11-DEC-1989; US-450329.  
PR 07-FEB-1990; US-479661.  
PA (SYNE-) SYNERGEN INC.  
DR WPI; 91-073847/11.  
DR P-PSDB; R10986.  
PT Tumour necrosis factor inhibitor - for suppression of TNF-alpha  
PT and -beta, useful as therapeutic agent.  
PS Disclosure; Fig 21; 142pp; English.  
CC The sequence encodes the entire 30 kD TNF inhibitor. The clone from  
CC which the sequence was obtd. was isolated from a cDNA library  
CC prepd. from RNA form U937 cells treated with PMA/PHA. The whole  
CC gene can be inserted into expression vectors for prepn. of TNF  
CC inhibitor for use in the treatment of inflammatory and degenerative  
CC diseases.  
CC See also Q10878, Q10884 and Q10907.  
SQ Sequence 2088 BP; 439 A; 626 C; 578 G; 445 T;

Initial Score = 1713 Optimized Score = 2077 Significance = 42.14  
Residue Identity = 99% Matches = 2082 Mismatches = 5  
Gaps = 1 Conservative Substitutions = 0

```

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|||||
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      X      10      20      30      40      50      60

150      160      170      180      190      200      210      220
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|||||
GCACTTGGGACGTCTTGGACAGACCGAGTCCCGGGAAGCCCCAGCACTGCCGCTGCCACACTGCCCTGAGCC
      70      80      90      100      110      120      130

      230      240      250      260      270      280      290
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      140      150      160      170      180      190      200

      300      310      320      330      340      350      360
GGTGCTCCTGGAGCTGTTGGTGGGAATATACCCCTCAGGGGTTATTGGACTGGTCCCTCACCTAGGGGACAG
|||||
GGTGCTCCTGGAGCTGTTGGTGGGAATATACCCCTCAGGGGTTATTGGACTGGTCCCTCACCTAGGGGACAG
      210      220      230      240      250      260      270

      370      380      390      400      410      420      430
GGAGAAGAGAGATAGTGTGTGTCCTCAAGGAAATATATCCACCTCAAAATAATTGATTTGCTGTACCAA
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```

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280 290 300 310 320 330 340 350

440 450 460 470 480 490 500  
GTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGACTGCAGGGAGTGTGA  
|||||  
GTGCCACAAAGGAACCTACTTGTACAATGACTGTCCAGGCCCGGGGCAGGATACGGACTGCAGGGAGTGTGA  
360 370 380 390 400 410 420

510 520 530 540 550 560 570 580  
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GAGCGGCTCCTTCACCGCTTCAGAAAACCACTCAGACACTGCCTCAGCTGCTCCAAATGCCGAAAGGAAAT  
430 440 450 460 470 480 490

590 600 610 620 630 640 650  
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500 510 520 530 540 550 560

660 670 680 690 700 710 720  
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570 580 590 600 610 620 630

730 740 750 760 770 780 790  
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|||||  
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640 650 660 670 680 690 700 710

800 810 820 830 840 850 860  
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720 730 740 750 760 770 780

870 880 890 900 910 920 930 940  
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790 800 810 820 830 840 850

950 960 970 980 990 1000 1010  
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860 870 880 890 900 910 920

1020 1030 1040 1050 1060 1070 1080  
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TGAAAAAGAGGGGGAGCTTGAAGGAACTACTACTAAGCCCCTGGCCCCAAACCCAAGCTTCAGTCCCCTCC  
930 940 950 960 970 980 990

1090 1100 1110 1120 1130 1140 1150  
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1000 1010 1020 1030 1040 1050 1060 1070

1160 1170 1180 1190 1200 1210 1220  
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1080 1090 1100 1110 1120 1130 1140

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1310 1320 1330 1340 1350 1360 1370  
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1220 1230 1240 1250 1260 1270 1280

1380 1390 1400 1410 1420 1430 1440  
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1290 1300 1310 1320 1330 1340 1350

1450 1460 1470 1480 1490 1500 1510  
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1360 1370 1380 1390 1400 1410 1420 1430

1520 1530 1540 1550 1560 1570 1580  
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1440 1450 1460 1470 1480 1490 1500

1590 1600 1610 1620 1630 1640 1650 1660  
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1510 1520 1530 1540 1550 1560 1570

1670 1680 1690 1700 1710 1720 1730  
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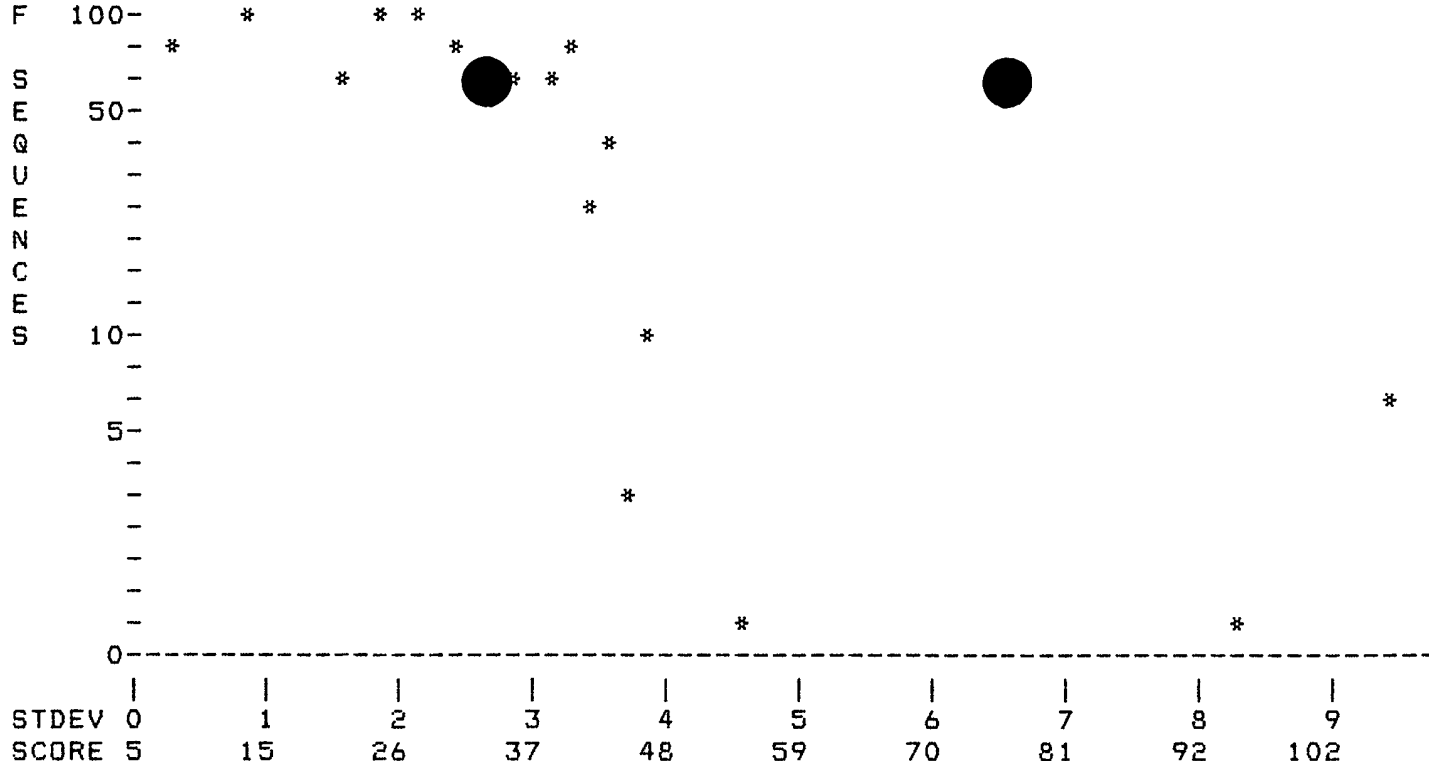
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1810 1820 1830 1840 1850 1860 1870  
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1720 1730 1740 1750 1760 1770 1780 1790

1880 1890 1900 1910 1920 1930 1940  
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1800 1810 1820 1830 1840 1850 1860

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 2030 2040 2050 2060 2070 2080 2090  
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 1940 1950 1960 1970 1980 1990 2000  
 2100 2110 2120 2130 2140 2150 2160  
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 |||||  
 GAGCACGGAACAATGGGGCCTTCAGCTGGAGCTGTGGACTTTTGTACATACACTAAAATTCTGAAGTTAAAG  
 2010 2020 2030 2040 2050 2060 2070  
 2170 X  
 AAAAAAAAAA  
 |||||  
 CTCAAAAAAAA  
 2080 X



#### PARAMETERS

Similarity matrix	Unitary	K-tuple	2
Mismatch penalty	5	Joining penalty	20
Gap penalty	5.00	Window size	13
Gap size penalty	0.26		
Cutoff score	0		
Randomization group	0		
Initial scores to save	20	Alignments to save	10
Optimized scores to save	20	Display context	10

#### SEARCH STATISTICS

Scores:	Mean	Median	Standard Deviation
	5	20	10.89

Times:	CPU	Total Elapsed
	00:02:00.00	00:04:01.00

Number of residues:	1428997
Number of sequences optimized:	3856

The scores below are sorted by optimized score.  
Significance is calculated based on optimized score.

A 100% identical sequence to the query sequence was found:

Sequence Name	Description	Length	Init. Score	Opt. Score	Sig.	Frame
1. R10986	30kD TNF inhibitor precursor.	455	455	455	41.34	0

The list of other best scores is:

Sequence Name	Description	Length	Init. Score	Opt. Score	Sig.	Frame
---------------	-------------	--------	-------------	------------	------	-------

\*\*\*\* 41 standard deviations above mean \*\*\*\*



2. R11082	Human 55kD TNF-binding protei	455	454	454	41.25	0
3. R12550	Type I TNF receptor.	455	453	453	41.15	0
	**** 40 standard deviations above mean ****					
4. R07451	Human Tumour Necrosis Factor-	455	451	451	40.97	0
	**** 33 standard deviations above mean ****					
5. R07449	Tumour Necrosis Factor-Bindin	371	371	371	33.62	0
	**** 19 standard deviations above mean ****					
6. R07450	Rat Tumour Necrosis Factor-Re	461	240	212	19.02	0
	**** 8 standard deviations above mean ****					
7. R10984	Partial sequence 30kD TNF inh	102	81	96	8.36	0
	**** 4 standard deviations above mean ****					
8. R11142	TNF-R deduced from mTNF-R clo	474	8	55	4.59	0
	**** 3 standard deviations above mean ****					
9. P70416	Polypeptide with IgE binding	557	5	47	3.86	0
10. R13949	SUP-B27 t(1;19) translocation	736	9	47	3.86	0
11. R12914	Human Thyroid Stimulating Hor	764	6	47	3.86	0
12. R13269	Human Thyroid Stimulating Hor	764	6	47	3.86	0
13. R12505	Human thyroid stimulating hor	764	6	47	3.86	0
14. R13951	E2A/pr1 fusion protein TYPE I	825	9	47	3.86	0
15. R15158	E2A/pr1 fusion protein TYPE I	742	9	47	3.86	0
16. R13948	SUP-B27 t(1;19) translocation	819	9	47	3.86	0
17. R10656	Hepatic parenchymal cell grow	727	8	46	3.77	0
18. P61048	A.nidulans phosphoenol pyruvic	1085	5	46	3.77	0
19. R11254	Human IL-4 receptor.	825	5	46	3.77	0
20. R08406	Sequence deduced from env gen	846	6	45	3.67	0

1. US-07-625-668A-2 (1-455)

R10986 30kD TNF inhibitor precursor.

ID R10986 standard; Protein; 455 AA.  
AC R10986;  
DT 13-MAY-1991 (first entry)  
DE 30kD TNF inhibitor precursor.  
KW Tumour necrosis factor; inhibitor.  
OS Homo sapiens.  
FH Key Location/Qualifiers  
FT Cleavage-site 40..41  
FT note=" cleavage gives active protein "  
PN AU9058976-A.  
PD 24-JAN-1991.  
PF 16-JUL-1990; 058976.  
PR 18-JUL-1989; US-381080.  
PR 11-DEC-1989; US-450329.  
PR 07-FEB-1990; US-479661.  
PA (SYNE-) SYNERGEN INC.  
DR WPI; 91-073847/11.  
DR N-PSDB; Q10883.  
PT Tumour necrosis factor inhibitor - for suppression of TNF-alpha  
PT and -beta, useful as therapeutic agent.  
PS Disclosure; Fig 21; 142pp; English.  
CC The sequence comprises the entire 30 kD TNF inhibitor. The clone  
CC from which the sequence was deduced was isolated from a cDNA  
CC library prepd. from RNA form U937 cells treated with PMA/PHA.  
CC The whole gene can be inserted into expression vectors for prepn.  
CC of TNF inhibitor for use in the treatment of inflammatory and  
CC degenerative diseases. The active protein is claimed (Claim 8).  
CC See also R10984 and R11001.  
SQ Sequence 455 AA;  
SQ 20 A; 27 R; 17 N; 21 D; 0 B; 30 C; 15 Q; 30 E; 0 Z; 30 G; 10 H;  
SQ 13 I; 58 L; 20 K; 5 M; 14 F; 37 P; 36 S; 31 T; 5 W; 13 Y; 23 V;

Initial Score = 455 Optimized Score = 455 Significance = 41.34  
Residue Identity = 100 Matches = 45 Mismatches = 0  
Gaps = 0 Conservative Substitutions = 0

PD 20-MAR-1991.  
 PF 31-AUG-1990; 116707.  
 PR 12-SEP-1989; CH-003319.  
 PR 08-MAR-1990; CH-000746.  
 PR 20-APR-1990; CH-001347.  
 PA (HOFF ) HOFFMANN-LA ROCHE AG.  
 PI Brockhaus M, Dembic Z, Gentz R, Lesslauer W, Lotscher H;  
 PI Schlaeger EJ;  
 DR WPI; 91-081851/12.  
 DR N-PSDB; Q10955.  
 PT Insoluble tumour necrosis factor binding proteins - and DNA  
 PT encoding them, useful in pharmaceutical prods. and for antibody  
 PT prodn.  
 PS Claim 1; Fig 1; 26pp; German.  
 CC Partial amino acid sequences were determined for the 55 and 75kD  
 CC TNF-BPs (see R11072-R11081) and oligonucleotide primers were  
 CC synthesised based on these partial sequences. The primers were used  
 CC to produce a cDNA fragment for use as aprobe to screen a human  
 CC placental cDNA bank constructed in lambda gt11. Positive clones were  
 CC identified and sequenced. DNA constructs comprising the TNF-BP coding  
 .CC sequence may also contain a fragment encoding a human Ig domain.  
 CC Recombinant constructs are used to transform cells to confer  
 CC improved TNF-binding properties.  
 CC See also Q10956.  
 SQ Sequence 455 AA;  
 SQ 20 A; 27 R; 17 N; 21 D; 0 B; 30 C; 15 Q; 30 E; 0 Z; 30 G; 10 H;  
 SQ 13 I; 57 L; 20 K; 5 M; 14 F; 37 P; 36 S; 31 T; 5 W; 13 Y; 24 V;

Initial Score = 454 Optimized Score = 454 Significance = 41.25  
 Residue Identity = 99% Matches = 454 Mismatches = 1  
 Gaps = 0 Conservative Substitutions = 0

```

X      10      20      30      40      50      60      70
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|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGKYIHPQNNNSICCTKCHKGTYLYNDC
X      10      20      30      40      50      60      70

      80      90     100     110     120     130     140
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|||||
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      80      90     100     110     120     130     140

     150     160     170     180     190     200     210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
     150     160     170     180     190     200     210

     220     230     240     250     260     270     280
VIFFGCLLSLLFIGLMYRYQRWKSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSVP
|||||
VIFFGVCLLSLLFIGLMYRYQRWKSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSVP
     220     230     240     250     260     270     280

     290     300     310     320     330     340     350     360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
     290     300     310     320     330     340     350     360

     370     380     390     400     410     420     430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTTPRREATLELLGRVLRDMDLLG
  
```

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGKYIHPQNNNSICCTKCHKGTYLYNDC
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGKYIHPQNNNSICCTKCHKGTYLYNDC
X      10      20      30      40      50      60      70

      80      90     100     110     120     130     140
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDRTVCGCRKNQYRHYWSENLFQCF
|||||
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDRTVCGCRKNQYRHYWSENLFQCF
      80      90     100     110     120     130     140

     150     160     170     180     190     200     210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
     150     160     170     180     190     200     210

     220     230     240     250     260     270     280
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
|||||
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
     220     230     240     250     260     270     280

    290     300     310     320     330     340     350     360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTDDPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTDDPATLY
    290     300     310     320     330     340     350     360

     370     380     390     400     410     420     430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
     370     380     390     400     410     420     430

     440     450     X
CLEDIEEALCGPAALPPAPSLLR
|||||
CLEDIEEALCGPAALPPAPSLLR
     440     450     X

```

## 2. US-07-625-668A-2 (1-455)

R11082 Human 55kD TNF-binding protein.

```

ID   R11082 standard; Protein; 455 AA.
AC   R11082;
DT   24-MAY-1991 (first entry)
DE   Human 55kD TNF-binding protein.
KW   Tumour Necrosis Factor; binding proteins; septic shock;
KW   autoimmune glomerulonephritis; lymphokine; cytokine.
FH   Key Location/Qualifiers
FT   Modified -site 54
FT   /label= putative N-glycosylation site
FT   Modified -site 145
FT   /label= putative N-glycosylation site
FT   Modified -site 151
FT   /label= putative N-glycosylation site
FT   Modified -site 270
FT   /label= putative N-glycosylation site
FT   Region 212..230
FT   /label= transmembrane region
FT   Peptide 1..28
FT   /label= signal peptide
PN   EP-417563-A.

```

440 450 X  
 CLEDIEEALCGPAALPPAPSLLR  
 |||||  
 CLEDIEEALCGPAALPPAPSLLR  
 440 450 X

### 3. US-07-625-668A-2 (1-455)

R12550 Type I TNF receptor.

ID R12550 standard; Protein; 455 AA.  
 AC R12550;  
 DT 12-SEP-1991 (first entry)  
 DE Type I TNF receptor.  
 KW Tumour Necrosis Factor; TNF; binding protein; TBP-I.  
 OS Homo sapiens.  
 FH Key Location/Qualifiers  
 FT Peptide 1..21  
 FT /label= sig\_peptide  
 FT Protein 22..455  
 FT /label= mat\_protein  
 FT Domain 212..234  
 FT /label= transmembrane\_domain  
 FT Region 41..53  
 FT /label= TBP-I derived sequence  
 FT Region 110..124  
 FT /label= TBP-I derived sequence  
 FT Region 199..201  
 FT /label= TBP-I derived sequence  
 FT Modified -site 54..56  
 FT /label= N-glycosylation\_site  
 FT Modified -site 145..147  
 FT /label= N-glycosylation\_site  
 FT Modified -site 151..153  
 FT /label= N-glycosylation\_site  
 FT Region 44..83  
 FT /label= repeat\_1  
 FT Region 84..126  
 FT /label= repeat\_2  
 FT Region 127..167  
 FT /label= repeat\_3  
 FT Region 168..201  
 FT /label= repeat\_4  
 FT Domain 21..203  
 FT /label= soluble\_domain  
 FT /note= "may be 2 amino acids shorter or contain a  
 FT few additional amino acids"  
 PN EP-433900-A.  
 PD 26-JUN-1991.  
 PF 13-DEC-1990; 124133.  
 PR 13-DEC-1989; IL-092697.  
 PR 12-JUL-1990; IL-095064.  
 PA (YEDA ) YEDA RES & DEV CO LTD.  
 PI Wallach D, Nophar Y, Kemper D, Engelmann H, Brakebusch C;  
 PI Aderka D;  
 DR WPI; 91-186774/26.  
 DR N-PSDB; Q12215.  
 PT Recombinant tumour necrosis factor binding protein I - prepd. by  
 PT transfecting eukaryotic cells with vector contg. deoxyribonucleic  
 PT acid encoding human type T TNF receptor or soluble domain  
 PS Disclosure; Fig 1(D); 30pp; English.  
 CC The Tumour Necrosis Factor Binding Protein I is the soluble form of  
 CC type I TNF-receptor and constitutes a fragment of the cell surface  
 CC form of this receptor, corresp. to its extracellular domain.

CC The soluble proteins produced by the transfected cells secreted  
 CC into the medium may have at the N-terminus the sequence Asp-Ser-Val  
 CC (41-43), or the sequence Leu-Val-Pro (30-32) or Ile-Tyr-Pro (22-24)  
 CC or any other sequence between Ile (21) and Asp (41).  
 CC See also Q12212-15.  
 SQ Sequence 455 AA;  
 SQ 20 A; 27 R; 17 N; 21 D; 0 B; 30 C; 15 Q; 30 E; 0 Z; 30 G; 10 H;  
 SQ 13 I; 58 L; 20 K; 5 M; 14 F; 37 P; 37 S; 31 T; 4 W; 13 Y; 23 V;

Initial Score = 453 Optimized Score = 453 Significance = 41.15  
 Residue Identity = 99% Matches = 453 Mismatches = 2  
 Gaps = 0 Conservative Substitutions = 0

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGKYIHPQNNNSICCTKCHKGTYLYNDC
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGKYIHPQNNNSICSTKCHKGTYLYNDC
X      10      20      30      40      50      60      70

      80      90     100     110     120     130     140
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDRTVCGCRKNQYRHYWSENLFQCF
|||||
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDRTVCGCRKNQYRHYWSENLFQCF
      80      90     100     110     120     130     140

     150     160     170     180     190     200     210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
     150     160     170     180     190     200     210

     220     230     240     250     260     270     280
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
|||||
VIFFGLCLLSLLFIGLMYRYQRCKSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
     220     230     240     250     260     270     280

    290     300     310     320     330     340     350     360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIP NPLQKWEDSAHKPQSLD TDDPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIP NPLQKWEDSAHKPQSLD TDDPATLY
    290     300     310     320     330     340     350     360

     370     380     390     400     410     420     430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
     370     380     390     400     410     420     430

     440     450     X
CLEDIEEALCGPAALPPAPSLLR
|||||
CLEDIEEALCGPAALPPAPSLLR
     440     450     X

```

#### 4. US-07-625-668A-2 (1-455)

R07451 Human Tumour Necrosis Factor-Receptor from lambdaT

ID R07451 standard; protein; 455 AA.  
 AC R07451;  
 DT 29-JAN-1991 (first entry)  
 DE Human Tumour Necrosis Factor-Receptor from lambdaTNF-R2 cDNA insert.  
 KW Tumour necrosis factor binding protein; TNF-B; TNF-receptor;  
 KW infectious disease; parasitic disease; cachexia;  
 KW autoimmune disease; shock; lambdaTNF-R2; raTNF-R8.

OS Homo sapiens.  
 PN EP-393438-A.  
 PD 24-OCT-1990.  
 PF 06-APR-1990; 106624.  
 PR 21-APR-1989; DE-913101.  
 PR 21-JUN-1989; DE-920282.  
 PA (BOEH) BOEHRINGER INGELHEIMINT.  
 PI Hauptmann R, Himmler A, Maurer-Fogy I, Stratowa C;  
 DR WPI; 90-321987/43.  
 DR N-PSDB; Q06285.  
 PT DNA encoding TNF binding protein and TNF- receptor - used in  
 PT tumour treatment and to understand mechanism to TNF action  
 PS Disclosure; Fig 91(1-2); Slipp; German.  
 CC ratTNF-R8 (Q06284) was used to screen the HS913T cDNA library.  
 CC LambdaTNF-R2 encodes the complete human TNF-R2 and was used to  
 CC construct a plasmid (pADTNF-R) expressing the product the same way  
 CC as pADTNF-BP (see Q06282). The expressed proteins are useful  
 CC prophylactically and therapeutically to control disorders which  
 CC involve the damaging effects of TNF-alpha or -beta (e.g. infectious or  
 CC parasitic diseases, shock, cachexia, autoimmune diseases, adult  
 CC respiratory distress syndrome etc., or side effects of treatment with  
 CC TNF-alpha). They can also be used as diagnostic reagents for  
 CC assaying TNF and in study of TNF-receptor interactions.  
 CC See also Q06282-Q06285.  
 SQ Sequence 455 AA;  
 SQ 21 A; 27 R; 17 N; 21 D; 0 B; 30 C; 16 Q; 29 E; 0 Z; 29 G; 10 H;  
 SQ 13 I; 57 L; 20 K; 5 M; 14 F; 37 P; 37 S; 30 T; 5 W; 13 Y; 24 V;

Initial Score = 451 Optimized Score = 451 Significance = 40.97  
 Residue Identity = 99% Matches = 451 Mismatches = 4  
 Gaps = 0 Conservative Substitutions = 0

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLELLLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
MGLSSVPDLLLPLVLELLLVGIYPSAVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC
X      10      20      30      40      50      60      70

      80      90     100     110     120     130     140
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTCVCGCRKNQYRHYWSENLFQCF
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTCVCGCRKNQYRHYWSENLFQCF
      80      90     100     110     120     130     140

      150     160     170     180     190     200     210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
      150     160     170     180     190     200     210

      220     230     240     250     260     270     280
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
      220     230     240     250     260     270     280

      290     300     310     320     330     340     350     360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
      290     300     310     320     330     340     350     360

      370     380     390     400     410     420     430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| ||||||| |||||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
  
```



```

      440      450      X
CLEDIEEALCGPAALPPAPSLLR
|||||||||||||||||||||
CLEDIEEALCGPAALPPAPSLLR
      440      450      X

```

## 5. US-07-625-668A-2 (1-455)

R07449 Tumour Necrosis Factor-Binding Protein from pTNF-B

ID R07449 standard; protein; 371 AA.  
AC R07449;  
DT 29-JAN-1991 (first entry)  
DE Tumour Necrosis Factor-Binding Protein from pTNF-BP15 cDNA.  
KW Tumour necrosis factor binding protein; TNF-BP; TNF-receptor;  
KW pTNF-BP15; infectious disease; parasitic disease; cachexia;  
KW autoimmune disease; shock.  
OS Homo sapiens.  
PN EP-393438-A.  
PD 24-OCT-1990.  
PF 06-APR-1990; 106624.  
PR 21-APR-1989; DE-913101.  
PR 21-JUN-1989; DE-920282.  
PA (BOEH) BOEHRINGER INGELHEIMINT.  
PI Hauptmann R, Himmler A, Maurer-Fogy I, Stratowa C;  
DR WPI; 90-321987/43.  
DR N-PSDB; Q06282.  
PT DNA encoding TNF binding protein and TNF- receptor - used in  
PT tumour treatment and to understand mechanism to TNF action  
PS Disclosure; Fig 1(1-3); 51pp; German.  
CC Clone pTNF-BP15 was used to construct pADTNF-BP, for transfection of  
CC e.g. COS7 cells. The expressed proteins are useful  
CC prophylactically and therapeutically to control disorders which  
CC involve the damaging effects of TNF-alpha or -beta (e.g. infectious or  
CC parasitic diseases, shock, cachexia, autoimmune diseases, adult  
CC respiratory distress syndrome etc., or side effects of treatment with  
CC TNF-alpha). They can also be used as diagnostic reagents for  
CC assaying TNF and in study of TNF-receptor interactions.  
CC See also Q06282-Q06285.  
SQ Sequence 371 AA;  
SQ 13 A; 14 R; 16 N; 16 D; 0 B; 27 C; 13 Q; 21 E; 0 Z; 25 G; 9 H;  
SQ 11 I; 41 L; 19 K; 3 M; 13 F; 32 P; 33 S; 28 T; 4 W; 12 Y; 21 V;

Initial Score = 371 Optimized Score = 371 Significance = 33.62  
Residue Identity = 100% Matches = 371 Mismatches = 0  
Gaps = 0 Conservative Substitutions = 0

```

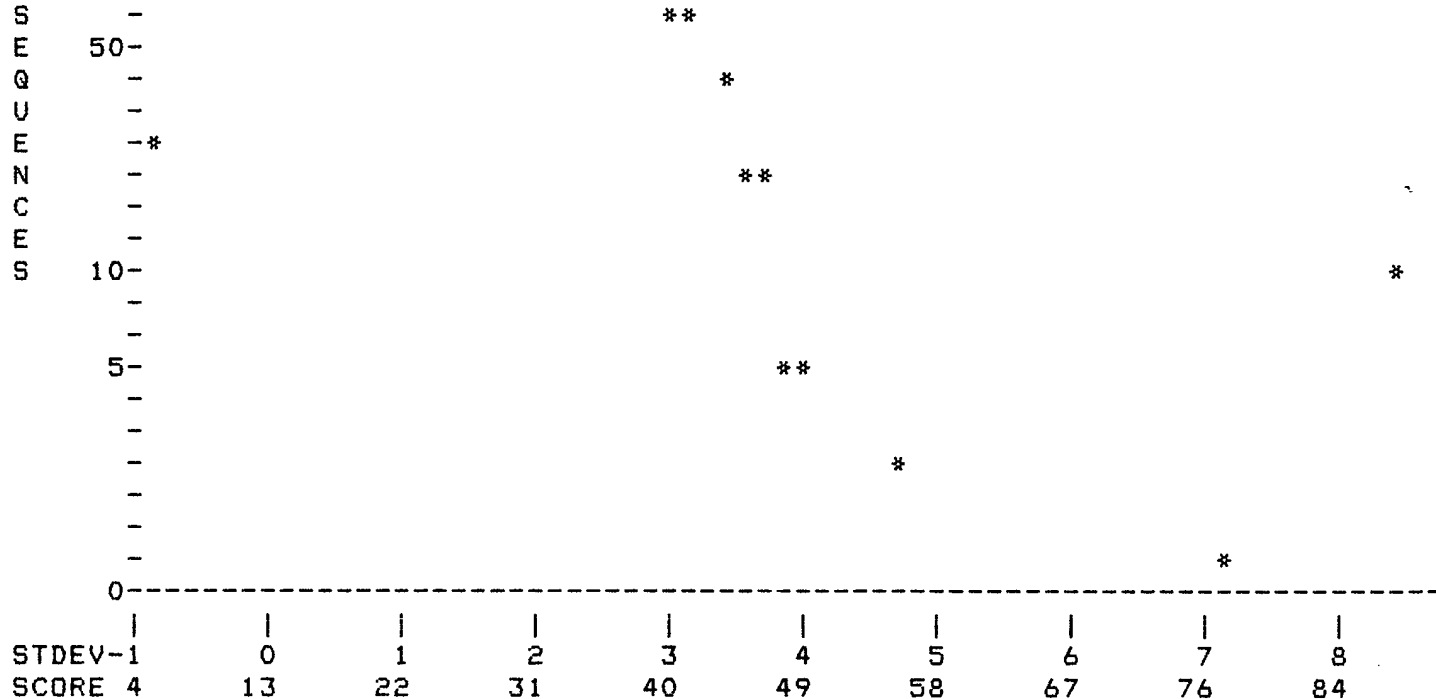
X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDG
|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDG
X      10      20      30      40      50      60      70

      80      90      100      110      120      130      140
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTCVCGCRKNQYRHYWSENLFQCF
|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTCVCGCRKNQYRHYWSENLFQCF
      80      90      100      110      120      130      140

      150      160      170      180      190      200      210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
      150      160      170      180      190      200      210

```





#### PARAMETERS

Similarity matrix	Unitary	K-tuple	2
Mismatch penalty	5	Joining penalty	20
Gap penalty	5.00	Window size	13
Gap size penalty	0.26		
Cutoff score	0		
Randomization group	0		
Initial scores to save	20	Alignments to save	10
Optimized scores to save	20	Display context	10

#### SEARCH STATISTICS

Scores:	Mean	Median	Standard Deviation
	13	25	9.09
Times:	CPU	Total Elapsed	
	00:02:47.05	00:05:40.00	
Number of residues:	1849227		
Number of sequences optimized:	4342		

The scores below are sorted by optimized score.  
Significance is calculated based on optimized score.

4 100% identical sequences to the query sequence were found:

Sequence Name	Description	Length	Init. Score	Opt. Score	Sig.	Frame
1. A34899	*Tumor necrosis factor recept	455	455	455	48.61	0
2. A34900	*Tumor necrosis factor recept	455	455	455	48.61	0
3. S12057	*Tumor necrosis factor recept	455	455	455	48.61	0
4. A36555	*Tumor necrosis factor recept	455	455	455	48.61	0

The list of other best scores is:

Sequence Name	Description	Length	Init. Score	Opt. Score	Sig.	Frame
---------------	-------------	--------	-------------	------------	------	-------

Number of scores above cutoff:

4342

Cut-off raised to 4.

Cut-off raised to 5.

Cut-off raised to 6.

Cut-off raised to 7.

The scores below are sorted by initial score.

Significance is calculated based on initial score.

4 100% identical sequences to the query sequence were found:

Sequence Name	Description	Length	Init. Opt.		Sig.	Frame
			Score	Score		
1. A34899	*Tumor necrosis factor recept	455	455	455	97.80	0
2. A34900	*Tumor necrosis factor recept	455	455	455	97.80	0
3. S12057	*Tumor necrosis factor recept	455	455	455	97.80	0
4. A36555	*Tumor necrosis factor recept	455	455	455	97.80	0

The list of other best scores is:

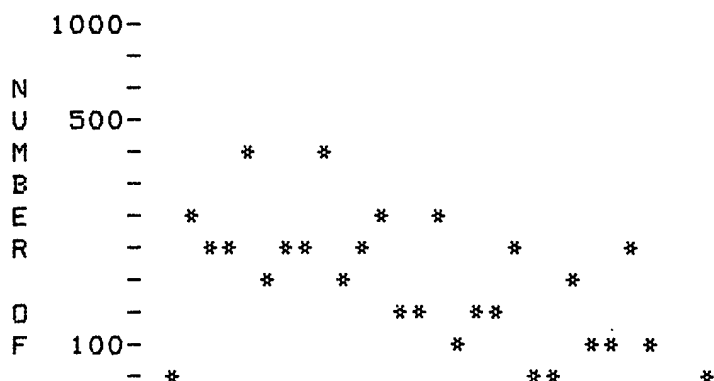
Sequence Name	Description	Length	Init. Opt.		Sig.	Frame
			Score	Score		
5. A38281	**** 97 standard deviations above mean **** *Tumor necrosis factor recept	455	452	452	97.15	0
6. B36555	**** 51 standard deviations above mean **** *Tumor necrosis factor recept	461	243	215	51.83	0
7. B40254	**** 47 standard deviations above mean **** *Tumor necrosis factor recept	454	224	267	47.71	0
8. A38634	*Tumor necrosis factor recept	454	224	267	47.71	0
9. S16677	*P55 tumor necrosis factor re	454	224	267	47.71	0
10. C36555	**** 11 standard deviations above mean **** *Tumor necrosis factor bindin	134	55	78	11.06	0
11. A38258	**** 3 standard deviations above mean **** *Tumor necrosis factor blocki	20	20	20	3.47	0
12. A42502	**** 1 standard deviation above mean **** *C22L protein - Vaccinia viru	122	11	21	1.52	0
13. I42528	*B28R protein - Vaccinia viru	122	11	21	1.52	0
14. W5WL11	ESA protein - Human papilloma	91	10	16	1.30	0
15. S00897	Pancreatic ribonuclease A pre	150	10	24	1.30	0
16. A31556	Glucose-transporter protein,	522	10	30	1.30	0
17. S05319	Glucose transport protein, he	523	10	28	1.30	0
18. S06920	Glucose transport protein, he	523	10	28	1.30	0
19. S01085	Hypothetical protein 1 - Whit	1294	10	43	1.30	0
20. A35186	*Salivary agglutinin receptor	1473	10	39	1.30	0

Query sequence being compared:US-07-625-668A-2 (1-455)

Number of sequences optimized:

4342

Results of the optimized comparison of US-07-625-668A-2 (1-455) with:  
Data bank : PIR 32, all entries



5. A38281	*Tumor necrosis factor recept	455	452	452	48.28	0
	**** 48 standard deviations above mean ****					
6. S16677	*P55 tumor necrosis factor re	454	224	267	27.93	0
7. B40254	*Tumor necrosis factor recept	454	224	267	27.93	0
8. A38634	*Tumor necrosis factor recept	454	224	267	27.93	0
	**** 22 standard deviations above mean ****					
9. B36555	*Tumor necrosis factor recept	461	243	215	22.21	0
	**** 7 standard deviations above mean ****					
10. C36555	*Tumor necrosis factor bindin	134	55	78	7.15	0
	**** 4 standard deviations above mean ****					
11. B38634	*Tumor necrosis factor recept	474	8	55	4.62	0
12. A40254	*Tumor necrosis factor recept	474	8	55	4.62	0
	**** 3 standard deviations above mean ****					
13. S18984	*Arrestin - Human (fragment)	409	8	49	3.96	0
14. GQHUN	Nerve growth factor receptor	427	9	49	3.96	0
15. OYB077	Guanylate cyclase, soluble, 7	691	6	49	3.96	0
16. S15921	*Protein TPX-VT3 - Thermoprot	474	8	49	3.96	0
17. B24785	Hypothetical protein 1028 - S	1028	6	48	3.85	0
18. A26728	Elastin a precursor - Bovine	747	7	48	3.85	0
19. A36226	*Collagen alpha-1 - Sea urchi	730	7	48	3.85	0
20. A26456	Nicotinic acetylcholine recep	625	7	48	3.85	0

1. US-07-625-668A-2 (1-455)

A34899 \*Tumor necrosis factor receptor precursor, 55K

ENTRY A34899 #Type Protein  
TITLE \*Tumor necrosis factor receptor precursor, 55K - Human  
DATE 01-Aug-1990 #Sequence 01-Aug-1990 #Text 01-Aug-1990  
PLACEMENT 0.0 0.0 0.0 0.0 0.0  
COMMENT \*This entry is not verified.  
REFERENCE  
#Authors Loetscher H., Pan Y.C.E., Lahm H.W., Gentz R., Brockhaus M., Tabuchi H., Lesslauer W.  
#Journal Cell (1990) 61:351-359  
#Title Molecular cloning and expression of the human 55 kd tumor necrosis factor receptor.  
#Reference-number A34899  
#Accession A34899  
SUMMARY #Molecular-weight 50494 #Length 455 #Checksum 153  
SEQUENCE

Initial Score = 455 Optimized Score = 455 Significance = 48.61  
Residue Identity = 100% Matches = 455 Mismatches = 0  
Gaps = 0 Conservative Substitutions = 0

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQKGKIHPPQNNICCTKCHKGTLYLND
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQKGKIHPPQNNICCTKCHKGTLYLND
X      10      20      30      40      50      60      70

      80      90     100     110     120     130     140
PGPGQDTCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCF
|||||
PGPGQDTCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCF
      80      90     100     110     120     130     140

     150     160     170     180     190     200     210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
     150     160     170     180     190     200     210

```

```

220      230      240      250      260      270      280
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSVP
|||||
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSVP
220      230      240      250      260      270      280

290      300      310      320      330      340      350      360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPINPLQKWEDSAHKPQSLDTPATLY
290      300      310      320      330      340      350      360

370      380      390      400      410      420      430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
370      380      390      400      410      420      430

440      450      X
CLEIDIEEALCGPAALPPAPSLLR
|||||
CLEIDIEEALCGPAALPPAPSLLR
440      450      X

```

## 2. US-07-625-668A-2 (1-455)

A34900 \*Tumor necrosis factor receptor precursor - Human ;

```

ENTRY      A34900      #Type Protein
TITLE      *Tumor necrosis factor receptor precursor - Human
DATE       01-Aug-1990 #Sequence 01-Aug-1990 #Text 01-Aug-1990
PLACEMENT  0.0      0.0      0.0      0.0      0.0
COMMENT    *This entry is not verified.
REFERENCE
#Authors   Schall T.J., Lewis M., Koller K.J., Lee A., Rice
            G.C., Wong G.H.W., Gatanaga T., Granger G.A.,
            Lentz R., Raab H., Kohr W.J., Goeddel D.V.
#Journal    Cell (1990) 61:361-370
#Title      Molecular cloning and expression of a receptor for
            human tumor necrosis factor.
#Reference-number A34900
#Accession  A34900
SUMMARY    #Molecular-weight 50494 #Length 455 #Checksum 153
SEQUENCE

```

```

Initial Score      =      455      Optimized Score      =      455      Significance = 48.61
Residue Identity   =     100%      Matches               =      455      Mismatches   =      0
Gaps               =      0      Conservative Substitutions =      0

```

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDC
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDC
X      10      20      30      40      50      60      70

80      90      100      110      120      130      140
PGPGQDQDTCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCF
|||||
PGPGQDQDTCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTVCGCRKNQYRHYWSENLFQCF
80      90      100      110      120      130      140

150      160      170      180      190      200      210
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
150      160      170      180      190      200      210

```

```

220      230      240      250      260      270      280
VIFFGLCLLSLLFIGLMYRYQWWSKLYSIVCGKSTPEKEGELEGGTTKPLAPNPSFSPTPGFTPTLGFSPV
|||||
VIFFGLCLLSLLFIGLMYRYQWWSKLYSIVCGKSTPEKEGELEGGTTKPLAPNPSFSPTPGFTPTLGFSPV
220      230      240      250      260      270      280

290      300      310      320      330      340      350      360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIPNNPLQKWEDSAHKPQSLDTPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIPNNPLQKWEDSAHKPQSLDTPATLY
290      300      310      320      330      340      350      360

370      380      390      400      410      420      430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG
370      380      390      400      410      420      430

440      450      X
CLEDIEEALCGPAALPPAPSLLR
|||||
CLEDIEEALCGPAALPPAPSLLR
440      450      X

```

### 3. US-07-625-668A-2 (1-455)

S12057 \*Tumor necrosis factor receptor type 1 - Human?

```

ENTRY      S12057      #Type Protein
TITLE      *Tumor necrosis factor receptor type 1 - Human
DATE       09-Jul-1991 #Sequence 09-Jul-1991 #Text 09-Jul-1991
PLACEMENT  0.0      0.0      0.0      0.0      0.0
COMMENT    *This entry is not verified.
SOURCE     Homo sapiens #Common-name man
REFERENCE
#Authors   Nopfar Y., Kemper O., Brakebusch C., Engelmann H.,
            Zwang R., Aderka D., Holtmann H., Wallach D.
#Journal   EMBO J. (1990) 9:3269-3278
#Title     Soluble forms of tumor necrosis factor receptors
            (TNF-Rs). The cDNA for the type I TNF-R, cloned
            using amino acid sequence data of its soluble
            form, encodes both the cell surface and a soluble
            form of the receptor.
#Reference-number S12057
#Accession  S12057
SUMMARY    #Molecular-weight 50494 #Length 455 #Checksum 153
SEQUENCE

```

```

Initial Score      =      455      Optimized Score      =      455      Significance = 48.61
Residue Identity   =     100%      Matches               =      455      Mismatches   =      0
Gaps               =      0      Conservative Substitutions =      0

```

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC
X      10      20      30      40      50      60      70

80      90      100      110      120      130      140
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTRVCGCRKNQYRHYWSENLFQCF
|||||
PGPGQDTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDRDTRVCGCRKNQYRHYWSENLFQCF
80      90      100      110      120      130      140

150      160      170      180      190      200      210

```

```

NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL
|||||
150      160      170      180      190      200      210

220      230      240      250      260      270      280
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
|||||
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV
220      230      240      250      260      270      280

290      300      310      320      330      340      350      360
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIP NPLQKWEDSAHKPQSLDTDDPATLY
|||||
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIP NPLQKWEDSAHKPQSLDTDDPATLY
290      300      310      320      330      340      350      360

370      380      390      400      410      420      430
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
|||||
AVVENVPPLRWKEFVRRRLGLSDHEIDRLELQNGRCLREAQYSMLATWRRRTPRREATLELLGRVLRDMDLLG
370      380      390      400      410      420      430

440      450      X
CLEDIEEALCGPAALPPAPSLLR
|||||
CLEDIEEALCGPAALPPAPSLLR
440      450      X

```

4. US-07-625-668A-2 (1-455)

A36555 \*Tumor necrosis factor receptor precursor - Human }

```

ENTRY      A36555      #Type Protein
TITLE      *Tumor necrosis factor receptor precursor - Human
DATE       15-Apr-1991 #Sequence 15-Apr-1991 #Text 15-Apr-1991
PLACEMENT  0.0      0.0      0.0      0.0      0.0
COMMENT    *This entry is not verified.
SOURCE     Homo sapiens #Common-name man
REFERENCE
#Authors   Himmler A., Maurer-Fogy I., Kroenke M., Scheurich
            P., Pfizenmaier K., Lantz M., Olsson I., Hauptmann
            R., Stratowa C., Adolf G.R.
#Journal   DNA Cell Biol. (1990) 9:705-715
#Title     Molecular cloning and expression of human and rat
            tumor necrosis factor receptor chain (p60) and its
            soluble derivative, tumor necrosis factor-binding
            protein.
#Reference-number A36555
#Accession  A36555
SUMMARY    #Molecular-weight 50494 #Length 455 #Checksum 153
SEQUENCE

```

```

Initial Score      =      455      Optimized Score      =      455      Significance = 48.61
Residue Identity   =     100%      Matches                =      455      Mismatches   =      0
Gaps               =      0      Conservative Substitutions =      0

```

```

X      10      20      30      40      50      60      70
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDC
|||||
MGLSTVPDLLLPLVLLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTLYNDC
X      10      20      30      40      50      60      70

80      90      100      110      120      130      140
PGPGQDQTDCRECESGSFTASENHLRHCLSCSKCRKEMGQVEISSCTVDKRDVCGCRKNQYRHYWSENLFQCF
|||||

```

PGPGQDTCRECESGSFTASSTHRLRHCLSCSKCRKEMGQVEISSCTVDRTVCGCRKNQYRHYWSENLFQCF  
80 90 100 110 120 130 140

150 160 170 180 190 200 210  
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL  
|||||  
NCSLCLNGTVHLSCQEKQNTVCTCHAGFFLRENECVSCSNCKKSLECTKLCLPQIENVKGTEDSGTTVLLPL  
150 160 170 180 190 200 210

220 230 240 250 260 270 280  
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV  
|||||  
VIFFGLCLLSLLFIGLMYRYQRWWSKLYSIVCGKSTPEKEGELEGTTTKPLAPNPSFSPTPGFTPTLGFSPV  
220 230 240 250 260 270 280

290 300 310 320 330 340 350 360  
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIPNNPLQKWEDSAHKPQSLDTPATLY  
|||||  
PSSTFTSSSTYTPGDCPNFAAPRREVAPPYQGADPILATALASDPIPNNPLQKWEDSAHKPQSLDTPATLY  
290 300 310 320 330 340 350 360

370 380 390 400 410 420 430  
AVVENVPPLRWKEFVRRRLGLSDHEIDRLLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG  
|||||  
AVVENVPPLRWKEFVRRRLGLSDHEIDRLLELQNGRCLREAGYSMLATWRRRTPRREATLELLGRVLRDMDLLG  
370 380 390 400 410 420 430

440 450 X  
CLEDIEEALCGPAALPPAPSLLR  
|||||  
CLEDIEEALCGPAALPPAPSLLR  
440 450 X

5. US-07-625-668A-2 (1-455)

A38281 \*Tumor necrosis factor receptor precursor - Human

ENTRY A38281 #Type Protein  
TITLE \*Tumor necrosis factor receptor precursor - Human  
DATE 30-May-1991 #Sequence 30-May-1991 #Text 30-May-1991  
PLACEMENT 0.0 0.0 0.0 0.0 0.0  
COMMENT \*This entry is not verified.  
SOURCE Homo sapiens #Common-name man  
REFERENCE  
#Authors Gray P.W., Barrett K., Chantry D., Turner M.,  
Feldmann M.  
#Journal Proc. Natl. Acad. Sci. U.S.A. (1990) 87:7380-7384  
#Title Cloning of human tumor necrosis factor (TNF)  
receptor cDNA and expression of recombinant  
soluble TNF-binding protein.  
#Reference-number A38281  
#Accession A38281  
#Cross-reference GB:M37764  
SUMMARY #Molecular-weight 50393 #Length 455 #Checksum 376  
SEQUENCE

Initial Score = 452 Optimized Score = 452 Significance = 48.28  
Residue Identity = 99% Matches = 452 Mismatches = 3  
Gaps = 0 Conservative Substitutions = 0

X 10 20 30 40 50 60 70  
MGLSTVPDLLLPLVLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC  
|||||  
MGLSTVPDLLLPLVLELLVGIYPSGVIGLVPHLGDREKRDSVCPQGGKYIHPQNNNSICCTKCHKGTYLYNDC  
X 10 20 30 40 50 60 70

